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CHICAGO, ILL., AUG. 20, 1903.

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WEEKLY



APIARY OF R. H. JEURS, OF NEW SOUTH WALES, AUSTRALIA.
(See page 532)



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EDITOR,

GEORGE W. YORK.

DEPT. EDITORS,

DR. C. C. MILLER, E. E. HASTY, EMMA M. WILSON

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- 1st.—To promote the interests of its members.
- 2d.—To protect and defend its members in their lawful rights.
- 3d.—To enforce laws against the adulteration of honey.

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ESTABLISHED IN 1861

AMERICAN BEE JOURNAL

THE OLDEST BEE-PAPER IN AMERICA

43d YEAR.

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No. 34.

Editorial Comments

Queen-Nurseries for Honey-Producers.—Queen-rearing is quite a business by itself, and the man who makes a business of rearing queens to sell can afford to use plans and appliances not generally used by one who rears queens only for his own use. Yet if the importance of having best queens were felt as fully as it should be, the average honey-producer would in his plans and appliances probably come nearer the commercial queen-rearer than he now does. Probably few honey-producers use anything in the line of a queen-nursery, but it might be an advisable thing to do for any one with 50 or more colonies.

Queen-cells nearly mature are put in a queen-nursery where the young queens may emerge from their cells and still be confined separately, and then instead of a queen-cell, a virgin queen may be given to a nucleus or a colony. There are advantages in this. The cell may contain a dead larva, or it may contain a young queen with defective wings, making her worthless. No loss can occur from either of these causes if the young-queens be allowed to emerge in a nursery. A good cell is sometimes torn down by the bees, and as a young queen is not always easily found, days may be wasted by the bee-keeper awaiting the laying of the queen when no queen is present, for he can not always tell by the look of the cell whether a queen has emerged from it or not. It is a nice thing to have a few virgin queens on hand for emergencies, and with a nursery a number can be kept in one hive, but without the nursery only one can be thus kept.

A friend who rears queens only for his own use says he would use a nursery if he never used queen-cells except by taking them from colonies that had swarmed. He has used with satisfaction both the Pridgen and the Stanley. The Pridgen has the advantage that there is no possibility of the bees getting at the cells to destroy them, and a cell may have quite a hole in it and yet hatch out all right. Neither can a queen ever get out of its own compartment, as it sometimes does in the Stanley. The Stanley has the advantage that being made of excluder-zinc the bees can get to the cells as freely as if they were on the combs. A cartridge containing a young queen can also be taken out separately to be taken elsewhere, whereas with the Pridgen the young queen must be allowed to come out of its compartment before it can be taken elsewhere.

Comb vs. Foundation.—In a previous issue of this journal, Adrian Getaz suggests the prevention of swarming by taking out of each colony every few days a frame of brood, and replacing it with a frame of foundation, saying that empty comb will not answer the purpose, as "the bees would often fill it with honey before the queen could lay in it." In one of the two-men conventions held by Editor Hill and O. O. Poppleton, as reported in the American Bee-Keeper, this matter came under discussion, and Mr. Hill says:

It will be noted that Mr. Getaz advocates the use of foundation in preference to a brood-comb because of the additional advantage thus secured by the queen. Here is where Mr. Getaz and Mr. Poppleton collide. According to the experience of the latter gentleman, either a sheet of foundation or a comb which had never been used for breeding purposes, are effectual barriers to the queen's progress—acting, in fact, somewhat as a division-board would do in dividing or

restraining the brood-nest, according to the position occupied by the said new combs or foundation; whereas, if given a brood-comb which has been formerly used for breeding purposes, she is quick to avail herself of the opportunity to extend her egg-laying operations. It is understood that during the height of the season, when brood-rearing is being pursued strenuously, the queen will quite readily take to "any old thing" in the way of combs, whether old or new, or whether full sheets or starters are used; but the point is, the queen's individual interests are greatly assisted by the use of old brood-combs, under all circumstances.

"When" two such "doctors disagree, who shall decide?" It is very certain that at least sometimes, when a frame or two frames of empty comb are given to the bees in the time of harvest, those combs will be filled with honey before the queen could have the time to fill them with eggs. That does not, however, leave it a foregone conclusion that in all cases this filling of honey into the combs would be an effectual bar to their use by the queen. The question is whether, when the combs are thus filled by honey, the bees will again empty it out as fast as needed by the queen.

Mr. Hill urges that the queen prefers old comb in which to lay; Mr. Getaz, that the bees prefer old combs in which to store honey; both are no doubt correct; the practical question remains, Will a frame of foundation or one of drawn comb do most toward the prevention of swarming? If a frame of drawn comb and one of foundation were given side by side, would that help to settle it?

Bee-Paralysis Reconsidered.—The following note has been received from Dr. Miller:

MR. EDITOR:—I take pleasure in forwarding to you a letter received from O. O. Poppleton, and although intended only as a private letter, it is of such general interest that I am sure my good friend, Mr. Poppleton, will forgive me for giving it entire to your readers.

I must thank Mr. Poppleton for calling attention anew to his method of cure, and ask his pardon that in the press of affairs it was not given the attention it fully deserved. Mr. Poppleton is a man of much and varied experience, whose word is entitled to thorough credit, and it is to be regretted that of late years we see so little from his pen.

C. C. MILLER.

The letter of Mr. Poppleton referred to reads as follows:

DADE CO., FLA., July 11, 1903.

DR. C. C. MILLER, Marango, Ill.—

MY DEAR FRIEND:—Will you grant me the privilege of hinting at a change which ought to be made in some of the answers to questions you have made within the last few months? I refer to the idea that there is no cure known for bee-paralysis, etc. See your answers in the American Bee Journal for June 4 and June 11, 1903. E. R. Root makes the same statement in a still more positive manner. See Gleanings for Aug. 15, 1902, page 679; for Sept. 1, page 720; Feb. 15, 1903, page 160; and May 1, page 396.

There is a certain cure known for the disease—one described by myself several years ago in the Review, and a couple years ago in the American Bee-Keeper. I enclose a copy of the latter, which you will see touches on all the points raised by inquirers and writers in the American Bee Journal and Gleanings within the last few weeks.

Please notice how extensive my experiments were—some 40 or 50 cases cured with considerably over a hundred untreated cases under observation; also the careful, thorough manner of conducting the experiments, by treating only a few cases at a time, and comparing them with other still untreated cases; then treating a few more at a time, and so on until all were cured. The result of this careful work was that every treated colony recovered in about the same number of days after treatment, while all the others remained diseased until treated. Handling as directed in the article prevents all loss of brood or brood-combs, and is a very important point.

If the condition of my eyes would allow, I would gladly write an article on this subject for either of the papers, which would fully answer all the inquiries lately made. In lieu of that I thought that perhaps calling your attention to what is already in print would give you a chance to help any future inquiries.

This is not written for publication, simply for your future use, if ever needed.

The coming meeting of our Association at Los Angeles, Calif., comes so early in the season that it is impossible for me to get away to attend it. I am much disappointed, but it can not be helped. We have three distinct flows of honey here in South Florida—winter, spring, and summer. The first and last are almost total failures this year, while the spring flow was extra good. The crop, as a whole, the poorest I have had in years—probably a little less than 100 pounds per colony.

O. O. POPPLETON.

P. S.—I think the many failures reported in the use of sulphur is simply because it wasn't rightly applied. Everything, to succeed, has to be done rightly.

On another page of this number will be found an article written by Mr. Poppleton for the American Bee-Keeper of April, 1901, which gives in full his treatment of the disease.

One of the strange things about bee-paralysis is the very great difference of opinion as to its importance. Some view it as a much-dreaded scourge, while others think it scarcely deserving attention. And with reason. In the North it appears in a mild form, seldom affecting any considerable number of bees, always disappearing of itself, while in the South it is a very serious matter. Having lost from it "about 15,000 pounds of honey, and quite a number of colonies of bees," Mr. Poppleton can certainly not consider it a matter for light consideration in Florida, where he now lives.

For the benefit of the novice, it may be well to mention briefly the signs by which the disease may be recognized. Some of the bees of a colony will be found on the alighting-board trembling as with the shaking palsy. Then they become somewhat swollen, and are black and shining from the removal of their plumage, perhaps caused by the abuse of the other bees which drive them from the hive; and later they stagger off upon the ground to die. If you find this condition of affairs in the North, you need scarcely give the matter a second thought; it amounts to but little, and in all probability will disappear of itself, perhaps to return in a short time, perhaps not at all. But if in the South, it will be well to give it immediate attention, and it will be well to apply thoroughly Mr. Poppleton's plan of cure *exactly as he gives it*.

Bees Feeding Each Other.—On another page appears an article from Arthur C. Miller, referring to some remarks made on page 467. The bump of veneration seems to be poorly developed in Mr. Miller, if not entirely lacking. No matter how hoary with age may be any tradition of the fathers, before accepting it as truth he insists that it must have the endorsement of the bees, just as much as if it were a belief uttered only yesterday.

It will be noticed that some care was taken not to come into very violent conflict with Mr. Miller's statements, chiefly a few questions asked. And with the same continued caution some questions may be mentioned that might be asked by some one anxious to defend the traditions of the fathers. Mind you, it need not necessarily be understood that in this quarter any doubt is entertained as to the improbability of Mr. Miller's position; just a suggestion of questioning that might arise in the mind of one accustomed to cherishing the old traditions. Some of those questions might be the following:

When bees appear to be caressing the queen, but are not caressing her, what are they doing?

When a queen pokes her tongue from the partly opened cell as a feeler, what is she feeling after?

If food always has to be asked for, how does the queen ask for it? Having mentioned these possible questions, the American Bee Journal might take the responsibility of asking just one question on its own account. In the article in the present number emphasis is put upon the point that food is not given by the tongue, but by the mouth, and the opening sentence gives the impression that in this quarter the opposite view is held. Now the question is: What is there said on page 467 in any way hinting that food is given by the tongue rather than by the mouth?

Amerikanische Bienenzucht, by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

The Premiums offered this week are well worth working for. Look at them.

Miscellaneous Items

THE APIARY OF R. H. JEURS, of Australia, as shown on the first page, appears to be a model of neatness. The group of people also are a happy looking company. When sending the picture, Mr. Jeurs wrote as follows:

I have been a subscriber to the "Old Reliable" for about eight years. I have about 600 full colonies and nuclei. I go in for queen-rearing extensively, and all my queens are reared on the Doolittle plan.

This not being a first-class locality, I have not made a record for honey, but it is improving, and a few years ago I thought I was playing up, having gotten 3 tons of honey; later I reached 12 tons, and bid fair to go to 20 or 30 tons.

I have worked up a private demand for my honey, and have thus disposed of 8 tons in one year. By so doing I have made bees pay me.

R. H. JEURS.

NOTICE OF DISSOLUTION.—By mutual agreement the partnership heretofore existing between Charles Mondeng and P. J. Doll, under the name of the Minnesota Bee-Keepers' Supply Manufacturing Co., of Minneapolis, Minn., has been dissolved, Charles Mondeng retiring from said firm. All accounts and bills receivable due the late firm are to be paid to said P. J. Doll, and all accounts and bills payable will be paid by said P. J. Doll. The business will be continued under the old name, and at the same stand.

CHARLES MONDENG.
P. J. DOLL.

A CONVENTION OF TWO.—Perhaps it might be called a series of conventions. That experienced veteran, O. O. Poppleton, each year takes his bees to the vicinity of the Florida home of Editor Hill, of the American Bee-Keeper. This year the bee-business in that region has not been very rushing, and it is only natural that Mr. Poppleton should occupy some of his leisure in making frequent visits to the editorial sanctum. As might be expected when two such men meet, each visit is a veritable bee-convention, and the first pages of the August number of the American Bee-Keeper is occupied with what the editor calls "A Medley," discussing various things apicultural suggested by the reading of this and other journals, making very interesting reading.

Association Notes

The Wilson Co. (Tex.) Association.

Pursuant to a call, the bee-keepers of Wilson, Karnes, Goliad, Atascosa and Bexar counties, Tex., met at the Court House in Floresville, and organized themselves into an association to be known as the Wilson County Bee-Keepers' Association. The following officers were elected: H. H. Hyde, president; J. B. Scott, vice-president; and M. C. West, secretary.

A committee was appointed to draft a constitution and by-laws for the association, and report at next meeting.

On motion, Mr. Homer H. Hyde was nominated and unanimously elected as a delegate to the convention of the National Bee-Keepers' Association at Los Angeles.

The following bee-keepers were present: Louis H. Scholl, L. Stachelhausen, H. Johnson, H. Piper, J. B. Treon, H. H. Hyde, M. C. West, G. F. Davidson, J. M. Bell, J. D. Bell, J. B. Scott, W. W. Davidson, W. T. Brite, W. E. Crandall, W. H. Mathis, W. M. Wingard, J. T. Bell, M. M. Faust, L. Haynes, E. N. Smith, J. M. Forest, Jos. Robinson, and J. H. Kolmeyer.

The convention then adjourned to meet Sept. 3 and 4, 1903.

Organized a Bee-Keepers' Business Association.

In convention at Floresville, Tex., Aug. 7, the bee-keepers of Wilson, Atascosa, Karnes, Goliad and Bexar counties voted to organize themselves into an association for the purpose of assisting the bee-keepers to a better market for their products, and for purchasing and distributing bee-keepers' supplies.

It was voted that the plan of association be modeled after that of the Colorado Honey-Producers' Association, an association of the bee-keepers of Colorado, which has been eminently successful in disposing of the product, and meeting the needs of the bee-keepers of that State.

Books were opened for the subscription of stock in the association, shares to be worth \$10 each.

The organization then proceeded to the election of officers, which resulted as follows: Dr. J. B. Treon, president; J. B. Scott, vice-president; and Will M. Wingard secretary.

Adjourned to meet Aug. 21, 1903.

Convention Proceedings

Proceedings of the Texas Bee-Keepers' Convention Held at the A. & M. College, at College Station, July 8 to 10, 1903.

BY LOUIS H. SCHOLL, SEC.

The annual meeting of the Texas Bee-Keepers' Association was called to order by Pres. Udo Toepperwein, at 9 a.m. of July 8.

The first subject of discussion was that of the election of officers for the ensuing term. This, according to the printed program, was to be left toward the close of the meeting, but as some preferred to have the election of officers first, it was, after some discussion, put to a vote, resulting in that the election be proceeded with, and these were elected: President, W. O. Victor; Vice-President, J. K. Hill; and Secretary-Treasurer, Louis H. Scholl.

The following committees were then appointed by Pres. Victor:

A committee of three to revise the Constitution and By-Laws: J. B. Salyer, Louis H. Scholl, H. H. Hyde; and to which was added the name of Prof. E. Dwight Sanderson.

A committee to inspect and to report on the College Experimental Apiary: J. M. Hagood, F. L. Aten, and Udo Toepperwein.

A committee to judge the honey on exhibition: H. H. Hyde, J. F. Teel, and J. K. Hill.

A committee on resolutions: O. P. Hyde, W. H. White, and Z. S. Weaver.

A committee on program for the next meeting: O. P. Hyde.

The next annual meeting of the National Bee-Keepers' Association, to be held at Los Angeles, was discussed for some length, and also what had been done by several of the members of the Texas Association in trying to get that meeting to be held at San Antonio this year. Every effort was used to get the meeting, but as the factor of cheap railroad fare plays the greatest part in the selection of the place of meeting of that Association, and as the meeting of the G. A. R. at San Francisco this year offered such inducements, it was most natural that the National should follow them. That left Texas to come in second. And we are glad of that fact. What we now have for the National is a most urgent invitation to come to Texas with their next meeting—and if that can not be, then we want them to come the next, or the very first chance that they may get. The Texas Bee-Keepers' Association is quite a portion of their body, and we certainly have a right to have them come to meet with us one time, anyway. There are about 70 of us who are members of that great Association, and we are growing in numbers; and we would grow much faster if the Association would only come to Texas once, so that the bee-men of this great State could get better acquainted with it and its objects. We are hoping that we shall see them soon.

The Texas Association will send several delegates to the Los Angeles meeting, viz.: Udo Toepperwein, Louis H. Scholl, and W. O. Victor.

Then the subjects of the regular program were taken up, and Prof. E. Dwight Sanderson, the State Entomologist, addressed the bee-keepers on

APICULTURAL WORK OF THE A. & M. COLLEGE.

First, let me extend you a cordial and hearty welcome as you again assemble here to discuss methods for the improvement of Texas bee-culture. Being charged with the direction of the experimental apiary here, it is with much pleasure that I meet this Association for the first time, to listen to your discussions, and to learn from you those lines of experimental work which will be of most immediate practical value.

The apicultural work of the A. & M. College falls naturally under three heads; viz.: (1) Investigation, (2) Police Work, and (3) Education.

(1) INVESTIGATION.—The experimental apiary, founded through the efforts of this Association and my predecessor, Prof. F. W. Mally, has been undergoing a steady process of development. In a little over a year it is impossible to fully

equip such an apiary and secure large results with but part of one man's time devoted to it. Furthermore, it requires time to become familiar with methods suited to the honey-flow of the locality. I feel, therefore, that my former assistant, Mr. Wilmon Newell, has done exceedingly well, in view of the fact that it was possible to devote but a part of his time to this work. We lost his services reluctantly, but were unable to meet the inducements offered elsewhere. Mr. Newell will present the results of his work to you so that any review by me is unnecessary.

It has been apparent for some time that for successful work the entire time of one man should be devoted to apiculture. We have, therefore, secured your secretary, Mr. L. H. Scholl, as assistant and apiculturist, who will give practically his entire time to apicultural work after the present summer.

We have also found that considerable additional equipment is needed at the bee-house. It is our purpose to add another room to the present house, with cellar beneath it, and to secure all necessary apparatus and supplies for the lines of investigation outlined below. For this purpose we have set aside \$900—almost double the amount available during the past year. College Station is by no means an ideal place for bee-keeping, and we have found the honey-flow insufficient to supply over 40 colonies at most. This, and other factors, have led us to arrange for two out-yards in the Brazos River bottom, some ten miles from the college, where experiments will be carried on under our direction, but without expense to us. Future lines of investigation proposed by Mr. Scholl and Mr. Newell, many of them already undertaken, may be briefly mentioned as follows:

Comparison of hives and construction of improved and special hives; comparison of races of bees; comparison of methods of management; methods of preventing swarming; methods of running out-yards; studies of the home manufacture and styles of comb foundation; methods and profit of manufacture of vinegar from cheap honey and honey-waste; methods of bottling honey; planting for honey; native honey-plants, etc. These, and other problems which may suggest themselves, will be taken up as fast as feasible. With the additions now contemplated we shall have the best apiary of any agricultural college or experiment station, and the only one, to our knowledge, with an apiculturist. We may, therefore, reasonably expect to secure results of value from these investigations during the next few years, which will be published upon completion.

(2) POLICE WORK.—Through the efforts of this Association, a bill for the suppression and control of foul brood and other diseases of bees was introduced in the 28th Legislature by Hon. Hal Sevier, of Sabinal, to whom we are under many obligations, and finally passed. The law covers the situation quite effectively, but most unfortunately provides no funds for its enforcement. The writer called the attention of the author of the bill and the officers of this Association to the necessity of providing funds for the enforcement of the law if it were to become effective, but without avail. This is to be much regretted, and I believe shows the necessity for further strengthening this Association, both as regards membership and organization, in order that the importance and size of the industry may receive better recognition. But though no funds for the inspection work contemplated by this law are available, its mere enactment is a distinct forward step, and funds for its enforcement can doubtless be provided by the next legislature. Meanwhile we shall endeavor to do all possible toward the enforcement of the law where foul brood is known to exist by correspondence, and will prevent any knowing violations of its provisions as far as possible. This Association can be of the greatest assistance in this work in creating public sentiment in favor of the most thorough treatment of diseased bees. It also seems to me that local or county associations or sections of county farmers' institutes could do much toward the discovery of diseased bees and securing their proper treatment.

(3) EDUCATION.—Two lines of educational work are in our charge—instruction of students at the college in apiculture, and the instruction of farmers and bee-keepers throughout the State by means of literature and talks at farmers' institutes and bee-keepers' conventions. Until the present year no provision was made for instruction in apiculture in the regular agricultural course. It is now an elective study through the senior year, so that all who wish may obtain a full course. Special courses will be given to suit individuals whenever possible. Considerable student labor is also employed at the bee-house, and a boy interested in bees can thus secure a deal of practical knowledge

of them. Our equipment for the instruction of students is undoubtedly the best of any institution in the country. It remains for the bee-keepers of the State to make this branch of our work a success. Send us your boys, and get your neighbors' boys to come to the college for a full agricultural course, or a short course in bee-keeping and special subjects. Perchance older heads may also find it profitable to spend a few months here in study; one of our most enthusiastic students, in the short course in agriculture last winter, had passed three score years and ten. Before many years go by we hope to send out from this institution some bee-keepers who will be a credit to the efforts of this Association, and will do much for bettering the status of Texas apiculture.

We are wont to be proud of the fact that Texas leads all the States in amount and value of bees and their products. I have been studying the statistics of apiculture in Texas and other States as given in the 12th United States Census, and have secured some facts on this subject which may be of interest to you. It seems that Texas bee-keeping is much like the live stock industry with the longhorn steer—large quantity and very little quality. We are proud to number some of the most successful and progressive bee-keepers of the country as Texans; but for every one of these there are a thousand devotees of the old "bee-gum" whose bees and their product vastly increase the quantity, but woefully lower the quality of the apiary products.

First, let us compare the industry of Texas with that of the United States and other States and sections. Bee-keeping is more popular here than in many States. Seventeen percent of our farms have bees, while there are only 12.3 percent of those throughout the United States. But in nearly all other respects Texas stands near the bottom of the list.

The average amount of honey produced on farms reporting bees for the United States is 86.5 lbs.; for Texas 79.5 lbs.; slightly more than the average for the South Central, 66 lbs., and South Atlantic States, 62.4 lbs., but less than the North Central, 85.8 lbs., North Atlantic, 106.9 lbs., and far below the Western States with 304.4 lbs. per farm reporting. Likewise the average value of honey produced on farms reporting bees for the United States is \$9.42; for Texas, \$7.80; the South Central and South Atlantic being \$6.90 and \$6.78; while the values are greater in the North Central, \$10.07, North Atlantic, \$12.50, and Western, \$28.38. In the United States the honey product per colony of bees averaged 14.9 lbs.; for Texas, 12.2 lbs.; for the North Central States, 16.9 lbs.; for New York, 18 lbs.; for California, 28.3 lbs.; for Colorado, 29 lbs.; and for Arizona, 49 lbs. The average for Texas is slightly more than that for the Southern States, 11.3 lbs., but is exceeded by that of Arkansas, Kentucky, Virginia, West Virginia, and Florida. The average production of wax per colony for the United States was 43 lbs.; for Texas, 41 lbs.; for Arizona, 69 lbs.; and California, 89 lbs.

But the value of the product of the average colony is the best indication of the quality of our bees and status of bee-keeping in Texas. The average value of honey and wax produced per colony for the United States was \$1.62; for Texas, \$1.19; lower than the average for all the Southern States, \$1.20, and exceeded by all other sections of the country as follows: North Atlantic Division, \$1.94; North Central Division, \$1.98; Western Division, \$2.54; California, \$2.56; Colorado, \$2.87; and Arizona, \$3.55. In other words, whereas the Texas product was valued at \$468,527 in 1899, had the colonies been as productive as the average for the United States would have been worth \$637,363; and had they produced as much as those in the Northern divisions it would have brought \$770,972; while had they averaged as well as the Western division the value would have been more than doubled, and considerably over a million dollars.

The same point is brought out by a consideration of the average value of bees per colony. For the United States this is \$2.42; for Texas but \$1.91; there being only seven of the States (mostly southern) having a smaller value, while the average for all Southern States was \$1.95; for the North Central, \$2.95; Western, \$3.10; and North Atlantic, \$3.31. Thus the total value of Texas bees, \$749,483, though about 50 percent greater than that of any other State, would have been increased to \$973,090 had they been worth the average for the United States, and to about \$1,200,000 had they been worth the average value exclusive of the Southern States. Altogether, had Texas bees been of a quality of those of the average for the United States their total value, with value of their product, would have been about \$400,000 greater; and had they averaged with those of the Northern and Western States, they would have had about \$750,000

greater value, and been worth approximately one and a half million dollars.

But let us consider apiculture in Texas locally by counties, and we may possibly learn something which will throw light upon the above figures. I have compiled two maps, showing the local conditions of apiculture in Texas. The first gives the number of colonies in each county, and is colored according to the number of colonies per farm in each colony. The latter is secured by dividing the number of colonies by number of farms. It is to be regretted that the census does not give the number of farms reporting bees for each county. We see that 59 counties, mostly in the Panhandle country, have no bees. Of these, 40 have a considerable poultry product. Twenty-six counties have less than 100 colonies. East of Austin there is not over an average of one colony per farm. Twenty-eight counties, scattered through the central part of the State, have 2 to 4 colonies per farm. But 7 counties have 4 to 6 colonies per farm; five—Chambers, Dimmit, Frio, Kinney, and Kimble—have 6 to 10 per farm, while Uvalde has 23, and Zavalla 35 per farm. These figures show that the number of colonies are pretty evenly distributed throughout the humid portion of the State, but that there are relatively many more per farm in central and southwest Texas.

To appreciate the conditions, however, we must consult the second map, showing the pounds of honey produced per colony and value of bees per colony in each county. The map is colored according to the honey produced per colony. These figures show that the valuation placed upon colonies is very largely a local matter, and not related to the productiveness of the colonies, with the exception of Wharton, Dimmit and Uvalde counties, where the price has clearly been raised by the introduction of improved bees. In four counties less than five pounds of honey is produced per colony. In 56 counties from 5 to 10 pounds of honey per colony is produced; and in 41 counties between 10 and 12 pounds per colony.

Thus, in over half the honey-producing counties of the State (98 out of 180) less than the average of 12.2 pounds of honey per colony is produced. In 40 counties it is but little over the average, being 12 to 15 pounds. In 26 counties 15 to 20 pounds is secured. Six counties—Rains, Brazoria, Travis, Scurry, Winkler, and Presidio—produce 20 to 25 pounds, but there are only 45 colonies in the last three counties together, so they are not to be considered. Seven counties, including Starr and Midland, which have but 12 colonies, Wharton, Menard, Live Oak, Dimmit, and Uvalde produce over 25 pounds per colony. Thus, but five counties have a production equal to the average of the Western States.

Another map should show the total honey production for each county. It would reveal that the five counties of first rank as regards honey per colony produce 6 percent of the crop of the State; that the three of the class producing 20 to 25 pounds per colony (excluding three with but 45 colonies) produce 4 percent of the total; that the 21 (excluding those with but few colonies) producing 15 to 20 pounds per colony produce 19 percent of the total; and that all together these 29 counties, having an average production per colony greater than that for the United States, produce 29 percent of the total production of the State.

Of those counties producing 12 to 15 pounds per colony, over the average for the State, 35 (excluding five having less than 100 colonies) produce 27 percent of the crop of the State. Thus, the 64 counties, or 33 percent of the honey-producing counties of the State, produce 54 percent of the total crop. The remaining produce the other 46 percent. This points to the conclusion that the bulk of Texas honey comes from counties east of Austin, which produce about the same amount as the average per colony for the State, 12.2 pounds.

It is to be regretted that the value of honey for each county is not given, and that the value of honey and beeswax is combined in the total for the State, as these figures would give us a better indication of the quality of the product of different sections of the State. I am aware that the census was subject to much error, and that it is now three years old. But in comparing it with figures secured from bee-keepers in different counties, we are inclined to believe that the census is fairly accurate as a whole, and more to be relied upon than private information. Though a large advance has been made in apiculture in Texas in the last three years, and some shifting in the areas of greatest production, still the general conditions are doubtless practically the same. Those of you who are familiar with local conditions can doubtless better and further interpret the above

statistics than can I, but one or two conclusions seem to me quite readily apparent:

- (1) The bulk of the bees and honey of Texas is of a low grade.
- (2) The honey is produced mostly east of the Colorado River.
- (3) In this area there might easily be supported five to ten times the present number of colonies.
- (4) By improvement of the bees, and by better methods of hiving and management, the average product per colony might readily be increased 50 percent.

It seems to me that these facts open up a large field for our apiculturist to do valuable missionary work in bettering apiculture in Texas. It seems to me that many a farm might support a number of colonies of bees, cared for largely by the women and children, which, like the poultry, would go far toward furnishing the comforts of home and happier living. In connection with the development of large fruit interests, there is also a chance for many moderate-sized apiaries, for fruit-men are coming to learn that they must have bees to produce many varieties of fruit in perfection. Nor does it seem to me that professional bee-keepers need have any apprehension of an increase in the number of colonies, and consequent product will have an undesirable effect upon the market for first-class honey.

The market for honey is practically undeveloped, and the supply is far from filling the demand. As long as the market is not glutted an increase in production, providing the quality is maintained, exercises but little influence on the price of the first-class product. It seems to me that by bettering the methods of bee-keeping throughout the State, this Association will be doing much toward securing better prices for the products of its members. Unfamiliar with the conditions of apiculture in the widely varying conditions of this great State, it is impossible for me to point out the local application of these statistics, but their significance will be readily appreciated by this audience, and as time goes on we trust that Mr. Scholl will further elaborate this preliminary survey of Texas apiculture. We trust that with your co-operation and support we may do much toward bettering and furthering this most interesting and profitable industry.

In closing, let me again welcome you here. Visit the bee house and yard. Mr. Scholl will be glad to explain all details to your satisfaction, and we will appreciate all suggestions or criticisms. Let me assure you that though not a practical bee-keeper by profession or training, it will be my constant endeavor to direct the apicultural work under our care to the best interests of the advancement of Texas apiculture. I trust that in a few years Texas may lead in the quality of her bees and their product as well as in the quantity, and that her experimental apiary and the organization of her bee-keepers may be the best possible. To these ends we shall devote our best efforts, and with the continued assistance and support of this Association we do not doubt their achievement. E. DWIGHT SANDERSON.

A unanimous vote of thanks and appreciation was extended to Prof. Sanderson for the interest he has taken in the pursuit of apiculture in Texas.

Some figures of Mr. Toepperwein were very interesting, as they showed to some extent the great amount of honey that was produced in Texas. He reported that 13,000 cases of cans, of 120 pounds each, had been already sold, besides 190,000 sections. Of honey already shipped he says there was 1,560,000 pounds, both comb and extracted. The Hyde Bee Co. report about twice that much more.

(Continued next week.)

Honey as a Health-Food is the name of a 16-page leaflet (3½x6 inches) which is designed to help increase the demand and sale of honey. The first part is devoted to a consideration of "Honey as Food," written by Dr. C. C. Miller. The last part contains "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by every one who has honey for sale. It is almost certain to make good customers for honey. We know, for we are using it ourselves.

PRICES, prepaid—Sample copy free; 10 for 20 cts.; 25 for 40 cts.; 50 for 70 cts.; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; 1000 for \$7.50. Your business card printed free at the bottom of the front page, on all orders for 100 or more copies. Send all orders to the Bee Journal office.

Contributed Articles

Bees Feeding Each Other—Apiarian Errors.

BY ARTHUR C. MILLER.

S O, Mr. Editor, you think Mr. Miller is guessing when he says that bees never offer food to the queens or to each other on or by the tongue.

Suppose I answer you Yankee fashion by asking if you, or any one of your acquaintance, ever saw food so given and can swear that it was so given. Don't answer hurriedly, but before you answer at all, let me ask you to go and look at the bees. Take a frame from the hive, hold it up before you, and when you see one bee getting food from another, just tip the comb over until you can look at the bees from the side—see them in profile—take a magnifying glass if you wish. You will find one bee has its tongue in the other's mouth, and that the tongue of the latter is folded back under her chin. Now, if the bee with the projected tongue is the giver, why is the other not taking it on her tongue as she should be to fulfill present theories, for you say the queen puts out her tongue to receive food? But if the bee is taking food, why is not the giver's tongue out giving it, if that is the way food is given?

Now, just consider the structure of a bee's tongue; is there anything about it to suggest the possibility of food passing from one tongue to another? Does it look possible or probable? Did you ever hear of any one seeing two bees holding the tips ("spoons") of their tongues together, or of one bee holding the "spoon" against the grooved face of the other's tongue, or of the grooves of two tongues being held together? Did you ever consider why several drones put out their tongues toward a brother drone when that brother is getting food? Offering him food, aren't they?

The bee-keepers may go on believing food is given on and by the tongue, and a whole lot of other errors if they choose, and I cannot stop them, and if it makes them happy far be it from me to take away their pleasure. But they must not expect others to take much stock in what they say on other matters relating to bee-life, when they are so blind to what any one may see if they will take the pains to look.

I don't ask any one to take my word for the manner in which bees get food, or take my word for other things about bee-life. I only describe them as I see them, and any one can go and see the same things in any colony.

Beedom is full of hoary-headed, fossilized errors which should either be buried or put into glass cases as curiosities, but it is high time they got out of the bee-press, and gave the room over to more progressive matter. I take a host of bee-papers, and month after month wade through a sea of rehashed topics that would have been settled long ago had the truth been allowed to prevail. Matters of practice in practical apiculture hinge on a knowledge of bee-life, and where this knowledge is lacking—or worse, where error is held in its stead—practice is pretty sure to be at fault.

It's theories, not conditions, which have been our guide; now let's reverse things and go ahead. Running around in a circle is nice fun for little children, but rather undignified and certainly unprofitable for older persons.

Providence Co., R. I.

[See editorial reply on page 532.—EDITOR.]

Bee-Paralysis—Sulphur Cure a Success.

BY O. O. POPPLETON.

I PROMISED some time ago that as soon as I knew the result of certain experiments not then finished, I would write out some of my experiences with bee-paralysis in my apiary.

The disease is more widespread and serious than most bee-keepers realize. Twice within the last 20 years it has lessened the season's receipts from my apiary over 25 percent, entailing a loss of about 15,000 pounds of honey and quite a number of colonies of bees. There is more or less of it every year.

The disease itself is exceedingly erratic—comes and

goes without any apparent cause, and without strictly following any rules. Colonies in perfect health will sometimes be attacked suddenly, and in a very short time be reduced to a nucleus. At other times a diseased colony will suddenly recover without any known cause. For this reason no rule can be made by experiments with any one or even a few colonies. And now, after a personal experience with over 200 diseased colonies, I more than ever realize how little we really know of the nature, causes, prevention, or of the disease. While I am satisfied that it is to a limited extent contagious, I do not know exactly how the contagion is communicated.

While in Washington, just after the Philadelphia convention, Mr. Benton introduced me to Dr. Howard, United States Entomologist, and I had a short talk with him about his Division making a scientific investigation of the disease. He asked me to call on him in his office and talk the matter over; but when I did so he was out. I was disappointed, as I hoped, through him, to get some real, definite knowledge of the disease and how to fight it. I still hope that some practical scientist will do this work for us.

I have not yet learned how the contagion, if any, is communicated, but I think through dead or diseased bees only. Last season I made some experiments to learn whether combs, honey or brood carried it, by taking away all the brood from what diseased colonies I had and giving them to certain nuclei. I built up six nuclei by giving them brood from diseased colonies, and so far (nearly a year afterwards) only one of these six colonies has shown any signs of the disease.

As several other colonies have taken the disease this spring, it is not very likely that this one took it because of these combs of brood and honey. That five out of six failed to take the disease after nearly a year has passed looks as if it will be safe to use all combs of either honey or brood. This simplifies the problem of what to do with diseased colonies, and save the loss of combs and brood, as in the cases of foul brood.

Several years ago nearly or quite one-third of my apiary was diseased, and the prospect was that I might have to abandon bee-keeping because of it, after nearly half of the diseased colonies had died. Experimenting with all the methods of cure I could hear of, and the use of sulphur proved the only method of any value. This I applied to three or four colonies at a time, then in a few days to a few more. Then, after an interval to more, and so on, until all had been treated. The result was the entire cure of each colony treated in the order of their treatment, while not a colony in the yard recovered until a certain time after treatment, showing conclusively that it was the treatment which affected the cure. I have used the same method more or less since then, but not to so great an extent. Out of some 40 or 50 altogether which I have treated, all were cured by one treatment except three, which required a second one each. As many have reported failures in treating diseased colonies with sulphur, it looks as if they must have misapplied the sulphur some way, and I think it will be best to give in detail the way I have used it.

For reasons I will give later on in this, I always go to the colony I am to treat during the day, and take away all the combs that contain brood; or, at least, unsealed brood or eggs, and give to some other colony; then in the evening, as soon as the bees have quit work and are all home, I proceed to dust sulphur over every comb in the hive and, if possible, on every bee in the hive. I never measure the exact amount of sulphur used, but suppose about a teaspoonful to every three or four combs in the hive.

I do the work by taking what sulphur I can hold between my thumb and first two fingers and dusting same over first one side and then the other of each comb, bees and all; also over any collection of bees there may be off the combs in any part of the hive. My aim is to have a thin dusting of the sulphur over every bee and every comb in the hive. The thinner the dusting the better, so it reaches everything in the hive. I tried using an insect powder gun, but couldn't do as good work as I could with my fingers. The next day, after doing this dusting, I carry back to the hives the same number of combs and brood as I had taken away.

The reason for taking away brood before dusting the combs, and returning again afterward, is because the dusting of combs not only kills all the unsealed brood in the combs, but ruins these same combs for brood-rearing. If such combs are left in the hive, all eggs deposited in them will hatch out all right, but the larvæ will die as soon as hatched. By giving these same combs to strong colonies,

they will clean them out and use them all right, and no loss of combs or brood will result.

For a week after dusting a diseased colony with sulphur, fully as many or more bees will be dying as before the dusting; and this fact may lead some to think the "cure" is not a cure. It will take a couple of weeks before one can tell whether the treated colony is cured or not.

Diseased colonies are usually very weak in numbers after being cured, and are of very little, if any more, value than a good nucleus. I have doubts whether it really pays to cure them except such as can be treated very early in the season, before nuclei can be profitably made. For the last year I have adopted the plan of curing such colonies as needed it as early as the middle of February, or even earlier; after that I make as many nuclei as is needed for the purpose, and as soon as they have a young laying queen I take away the combs from the diseased colonies, giving the brood to these nuclei, thus building them up into good colonies and destroy all the diseased bees with sulphur fumes.

In changing combs from diseased to other colonies I am very particular to know that each comb is absolutely free from bees, especially of dead ones that may be in some empty cells. Diseased bees quite often crawl into empty cells to die.—American Bee-Keeper. Dade Co., Fla.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

Some Feminine "Four O'clocks."

On page 296, Mrs. West says she gets up at 4 o'clock in the morning.

Well, Mrs. West, we are getting up at 4 o'clock in the morning, too. I still think it entirely too early, but those bees of ours are such hustlers that we have to do it in order to keep up with them. I hope Texas is fulfilling your expectations, and giving you as nice a crop of honey as the bees of Illinois are giving us.

Lost Faith in Bee-Stings for Rheumatism.

I have lost faith in bee-stings as a cure for rheumatism. I never had as many stings in my life as I have had this summer, and I am having my first experience with rheumatism. It is all in my fingers, and is not a pleasant experience by any means, but I am never going to recommend bee-stings as a cure.

How to Prevent Swarming.

I have been wanting to say a word to our bee-keeping sisters, but have been so busy, or, rather, I want a little information about bees. I take the Bee Journal, but I can not find just what I want.

We have been in the bee-business only two years, so we know very little about it. We have 65 colonies, and want to work for comb honey, but our bees don't seem inclined to do so, but want to swarm all the time. How can we prevent it? They have all swarmed once, and the most of them have swarmed the second time, and still some are casting off little swarms every week or ten days. Can we put them back in the parent hive? If so, shall we kill the queen? I put some swarms back with the queen, but they came out again the next day. We do not want to enlarge our apiary, so what I want to know is how to prevent swarming. Plenty of room does not seem to do our bees any good, as I put plenty of supers on.

My husband and I care for our bees, and we find it very pleasant as well as interesting. MRS. LOU O. KING.

Garfield Co., Colo.

This has certainly been an unusual year in this locality for swarming. Bees have seemed to have a mania for it. So many absconding swarms are going into chimneys, porches, and siding of houses all over the country. I know one man that has had five swarms come into his house. Every few days some one telephones that they have had a

swarm of bees come to them, and would like to know what to do with them.

It is not an easy thing to prevent all swarming at best, and this year it has been much more difficult than usual. It is an exceeding difficult thing to prevent prime swarms, but these after-swarms that are so annoying can be almost certainly prevented. The old queen comes off with the first swarm, and she is not so flighty and hard to manage as a virgin—not so likely to abscond.

All after-swarms will have virgin queens. When your first swarm issues hive it and set on the stand of the old colony. Set the old colony close up to the swarm, letting it stay there about seven days then remove it to a new place. The flying force, when they go to the fields, instead of returning to the hive from which they came, will go back to the old place, and join the swarm, and the old colony weakened by losing all its flying force, and having no honey coming in, will conclude it doesn't want to swarm, and you will have no further trouble with it.

Your plan of returning swarms was all right, but you will have to keep on returning them until the last queen emerges from the cell. You see, it is this way:

When an after-swarm issues, one or more queens that have been kept in the cells are allowed to emerge, and when the swarm is returned a battle royal takes place among the free queens, only one surviving. If all have been allowed to emerge from the cells, the one return of the swarm will be the end of it; but if any are left in the cells you have to return the swarm again, perhaps the next day. So you will have to keep on returning the swarm as often as it issues, which may be only once, or it may be several times.

You can prevent all increase by returning the first swarm, and all succeeding swarms, but it may make a good deal of work.

A Beginning Sister—Honey for Stings.

I might say I am a beginner in the business. I started last year with one colony, and July 20 our first swarm issued, and as we had a clipped queen it was simply fun handling them, but when our second swarm came it was not so pleasant. We hived them, and after two days they left the hive and never waited to cluster, but went up over the tree-tops and out of sight, and we saw them no more. Our third swarm went back to the parent colony, so we had but two to winter, and they came out fairly well; only our clipped-queen colony is very weak, but it seems to be very industrious at present. We have not examined them yet, as the weather is too cool, and it might chill the brood, if there should be any, but I fear she has been hurt in the caging last summer, as the colony has simply dwindled ever since.

I am very fond of the bees, but I find they don't make very good pets; but I hope they will be more gentle this summer. They seem so busy now they have not time to sting.

I think the Bee-Keeping Sisters department of the Bee Journal the best corner in it, and that is the first I read when I get the paper. I would like to see many more letters every week.

Do any of the sisters ever get stings? If so, try honey on them. That is my cure. MRS. PETER CAMERON.
Polk Co., Minn.

Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

THE DEBT OF ALL TO ALL.

He'll never see a word of it, but others may who are in danger of feeling like him a few years hence—that man who stops his bee-paper because he doesn't get the wrappers off it. I know right well the disagreeable feeling of having baskets full of unopened papers around; and so I am qualified to scold him considerably. I scold. Is it right to take a course which, if generally followed, would deprive us of bee-papers? His duty to the American Bee Journal may not forbid, but how about his duty to the rest of us? I'm

presuming that he's a good man all through, and wishing to meet all his just obligations. It is not only the journal that needs him; we need him. And we think that if he would hold on a bit there would come sooner or later a revival of interest ("Left thy first love"), and that that revival of interest would do him good, both personally and financially. Papers that I suspect of having something in on one of those topics in which I am intensely interested—they get their wrappers torn off "quick sticks." Probably so with him.

Somebody in the past has made apiculture into a vocation this man and others could make money at; and the bee-paper has had a notable share in the work. Shall it be killed off, therefore? Somebody will make the apiculture of the future different—better than it would be if left to itself; and the bee-paper will have a strong hand in that. Give it, then, its very moderate measure of support. Page 403.

IMPORTANCE OF VENTILATION.

In case the reasoning of Arthur C. Miller proves to be rock-ribbed all around, and the air of the hive needs to be renewed 2,400 times for each 1½ pounds of honey eaten, it calls us (like the cardinals shut up at Rome) to a little personal interest in ventilation. Note how he tells us that this is a complete change every 30 minutes. Well, air is a nimble fluid, and will do a good deal of traveling in 30 minutes if we give it half a chance. But perhaps we must give it that half chance a little better than we have been doing in the past. One element of the situation most of us do not have in mind is how much air in 30 minutes can be made to go right through a board, a block of ice, a brick, a stone, almost anything. I have seen statistics on this point that were surprising. Wish I had them boiled down and in my memory so I could give them. Page 408.

AN ERROR THAT PRODUCED A HASTY LAUGH.

A crooked mark prominently out of place on page 409 made me laugh. Eyes a little dim, I didn't notice the hyphen which gives the whole thing away, and read—

"Does the Bee Work Herself?"

—and this in the Sisters department, too. Hires an ant, perchance, or induces an aunt. Looks so supremely wretched over the task she is dawdling at that her "brothers" do most of it eventually, just to relieve their minds. Page 409.

SEVERAL HUNDRED POUNDS OF HONEY.

In my department, page 410, in place of "several pounds of honey" read, several *hundred* pounds of honey. Kind o' hope the readers actually got the meaning by crediting me with an un contemplated dry joke.

PREVENTION OF DRONE-COMB BUILDING.

Is it true that very deep entrances and much space below the frames prevent the building of drone-comb? According to the reasoning of R. J. Cory, page 413, it ought to be. May be suspected that a rousing colony, filling all the bottom and part of out-doors, will forget that the bottom is an exposed situation. But that would not usually be in a newly-hived swarm, however; and that's the case when we are most often and most earnestly desirous of having all worker-comb built. Need a collection of experiences on this point, I think. As queenless bees always build drone-comb it may be suspected that *distance* from the queen has something to do with it even when there is one.

FOUND IRON IN HONEY.

And so the German savants have found iron to be a constituent of honey. Some of us knew pretty well all along that there were more things in honey than our professors would tell us of. Same proportion of iron as in good bread. Makes good blood and strong men. Page 414.

BALLED QUEENS DIE FROM VARIOUS CAUSES.

We at once suspect that the suffocation theory would hardly suffice alone for the death of balled queens when we think what a lot of drowning all bees will endure. Pretty plainly she may starve if they keep at it long enough—and don't get violent enough to kill her some other way—and friendly bees don't feed her while hostile ones are mildly hanging on to her. There seems to be all grades of violence, from a mere gentle hug to the most spiteful, hissing, tearing rage—not only killing the queen, but a great lot of the bees also. Mental worry is an ample cause of death in so highly organized a creature as a queen. In fact, I believe a worker can be worried to death—or made to worry itself to death, in about an hour. Angry bees sometimes eject poison, as

our own sense of smell quickly tells us, and absorption of ejected poison at least don't do her any particular good. Better we say a balled queen dies from a variety of causes—not usually a sting, but sometimes. Page 414.

Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

Italianizing in Louisiana.

1. When is the best time to Italianize bees in Louisiana?
2. How many queens would it take for 80 colonies to be Italianized by the next honey season?
3. Is there anything more modern upon the subject of rearing queens and Italianizing than the principles laid down in your text-book? If so, what is it?

LOUISIANA.

ANSWERS.—1. If you have no mishaps in introducing it does not make so very much difference when it is done. There is less danger of failure in introducing right in the harvest-time, but less interference with storing by introducing later in the season.

2. Possibly 85 or 90 to make a sure thing of it, if you have some losses in introducing. But you probably contemplate rearing queens, and in that case a single queen to rear from would do as well as more. Whether you can make a success of it in that way depends somewhat upon your season. With a good fall flow and vigorous action it ought not to be a very hard thing. Even if you have no fall flow, feeding will to some extent take its place.

3. There is perhaps nothing later than what you may find in "Forty Years Among the Bees," at least it is the latest of my knowledge and practice, yet that is limited only to my own practice. The excellent work of G. M. Doolittle on queen-rearing goes into the whole subject most fully. Nothing better can be found in print.

Honey Extracted When Two-Thirds Capped.

Owing to the lack of supplies I extracted some honey when about two-thirds capped. Will it do to sell it that way?

ILLINOIS.

ANSWER.—If the honey is very thin, it is better to sell it in that condition, but the mere fact that a third of it is still uncapped does not condemn it. If it is good, thick honey it does not matter that it was partly unsealed. If thin, it may be brought to a better consistency by letting it stand uncovered where it will be heated to 100 degrees or 125 degrees.

Bee-Keeping in Arkansas.

On page 473, "Pennsylvania" says he had a colony that had cells started in 5 days. I had a colony that cast a swarm in 14 days after being hived, and left the parent hive in good condition.

1. I have a small apiary that I run in connection with a farm. I live about 1½ miles from the Little Missouri river. Do you think the distance cuts much figure with the crop?

2. I have 28 colonies and 6 nuclei. Holly, linn, rattan, and various other plants and vines grow around that secrete nectar. Do you think it would pay better to increase the bees and put them near the bottom-land, or run a small yard with the farm out here in the hills? We have black-gum, rattan, blackberry, prickly ash, cotton, and sumac, all of them producing lots of honey. Do you think it would pay to neglect an ordinary farm to move the bees nearer to the bottom?

ARKANSAS.

ANSWERS.—1. Yes, distance cuts quite an important figure in many cases. But it is likely that a distance of 1½ miles is so little for the bees that there would be little gain in moving nearer.

2. I don't know, but I think it well to stick to the farm,

at least until the bee-business grew sufficiently to afford a good living. You might not find 100 colonies succeed so well as 28, and you might not find as much advantage as you expect from changing your location.

Moving Bees in a Car—Yellow Sweet Clover Honey.

1. Would it be safe to move bees in a closed car with household goods, they to be covered with wire-netting only? The car would be a week on the road.

2. Is honey from yellow sweet clover darker in color than that from white sweet clover? ONTARIO.

ANSWERS.—1. Something would depend on the weather. If not very hot, and the whole top of the hive is covered with wire-netting, and the bees are supplied with water by sponge or otherwise, they ought to get through all right.

2. I don't know, but I think the color is the same.

Untested Queen Questions—Bees Gnawing Foundation.

I have been trying to follow modern methods since last spring, and have this season been fairly successful. But the more I learn about bees the less I seem to understand about them, therefore I will venture to ask the following questions:

1. Are the "Standard Bred Queens" sent out by Editor York as premiums pure Italian?

2. Are they fertilized or virgin?

3. Is there any danger of getting foul brood with them as a free gift?

4. How soon should I be able to find eggs laid by one of those queens? I got one and introduced her Aug. 1, and found her all right this morning, Aug. 4.

5. Why do my bees gnaw some of the foundation out of the frames (both starters as well as full frame) and then build up again, but too much drone-comb? MISSOURI.

ANSWERS.—1. [Yes.—EDITOR.]

2. They are fertilized and already laying.

3. [No.—EDITOR.]

4. Sometimes within 24 hours after she is out of her cage, sometimes not for a week. The same is true of any queen introduced, even if she has not been through the mail.

5. I don't know. Possibly pure mischief when no honey is coming in.

Late Introduction of Queens—Swarms Returning.

The honey-flow has been over here a long time, since about May 15.

1. Can I make any forced swarms at this time, or must I wait until spring?

2. Can I introduce new queens yet? and how will I have to proceed?

3. I have one colony of bees which swarmed about 6 or 7 times, and the swarm went back to the old hive every time immediately after hiving in a new hive on starters. I also gave new comb for brood, and did every other way I could think of. What was the matter with it?

LOUISIANA.

ANSWERS.—1. You can, but not so successfully as when there is a flow of honey. You will have to feed, and it will be necessary to keep a very sharp lookout or you will start a bad case of robbing.

2. Yes, you can introduce queens any time so long as the weather is warm. The proceeding is the same as at any other time, but introducing is not always so successful in a dearth as when honey is coming in freely.

3. The queen may have had defective wings so that she could not go with the swarm; then when the bees found there was no queen with them they would return to the old hive.

Foundation Starters or Full Sheets—Gathering from Corn-Tassels—Too Strong Colonies—Rearing Queens

1. In using foundation starters, if you cannot use full sheets would you use wide or narrow starters?

2. What do bees gather from corn-tassels? I see them working on them.

3. Can a colony of bees get too strong? By this, I mean can they be strengthened up to such an extent that they

will fail to store as much honey as a less populous colony, because the bees will consume more honey than the weaker colony.

4. Would a colony with bees and brood in three 8-frame dovetailed hives be too strong in your opinion?

5. In starting queen-cells, by fastening a strip of comb (with the cells scraped off of one side) to a frame, so the cells point downward, my trouble is to get the strip of cells fastened without spoiling the eggs. Have you reared any queens by this method? If so, how do you fasten them? If you do not rear them this way, what is the best way to start them? I do not have a great deal of time to spend with queens, anyway.

MICHIGAN.

ANSWERS.—1. Wide; as a rule the larger the starter the better.

2. Pollen, and perhaps honey, too.

3. Other things being equal, I think no matter how strong a colony might be it would always store more than a less populous colony. I do not believe that a colony which is all the progeny of one queen can ever become too strong for the best results. If several colonies were united into one giant colony, it would store more than any weaker col-

ony, but it might store less than the same bees would have done if not united.

4. No, it would not be too strong, but as mentioned in 3, it may be that the same bees would have stored more as two separate colonies—for I take it that you mean to unite two or three colonies to get the three stories filled. If a single queen would fill the three stories, I would say all right.

5. Yes, I have reared a good many queens by the Alley plan, and have found no difficulty in fastening the strip by dipping it in melted wax, and the eggs were not injured by it. The way I prefer to rear queens for my own use is given very fully in "Forty Years Among the Bees," and although it would take too much space to give it here, I may say in brief that my best queen is kept in a nucleus where fresh combs are constantly built and filled with brood and eggs, and when these tender combs partly filling the frames are given to queenless bees they suit them to a nicety for starting a lot of fine cells.

You say you haven't much time to spend with queens. Pardon me for saying that if you have time to spend with bees at all, you have time to spend a good share of it in rearing the very best queens, seeing that a queen is the very soul of the whole colony. Good queen, good colony; poor queen, poor colony.

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We have arranged with several of the best queen-breeders to supply us during 1903 with **The Very Best Untested Italian Queens** that they can possibly rear—well worth \$1.00 each. We want every one of our present regular subscribers to have at least one of these Queens. And we propose to make it easy for you to get one or more of them.

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We prefer to use all of these Queens as premiums for getting new subscribers. But if any one wishes to purchase them aside from the Bee Journal subscription, the prices are as follows:

One Queen, 75c.; 3 Queens, \$2.10; 6 Queens for \$4.00.

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FROM MANY FIELDS

Two Brothers Go "A-Beeing."

I don't know whether letters are relished from tenderfeet or not. My brother, C. W., and myself, with our families, dogs, cats, parrots, and everything, moved to this beautiful spot from smoky Chicago last spring. We decided to take up bees as a side-line. I didn't know a queen-bee from a lightning-bug, and all my brother knew he had gleaned from a few random visits to a mutual friend, Stoughton Cooley. However, what he saw there got him interested, and we purchased five nuclei from a dealer.

Say, it would have made an old bee-man crack his ribs, I suspect, to have watched us manipulate bees! Later we picked up a snap in the shape of a couple of colonies from a "widder" up in the country, whose son had died, or done something, I have forgotten what. Shortly afterward, Mr. Stoughton Cooley being out, he informed us that, in his judgment, both of our snap colonies had foul brood. Of course, our hair rose straight up, and we at once notified State Inspector Smith. While waiting for him we destroyed both colonies, but boxed up the comb for his inspection. He came last evening, and inspected us all over to-day.

Mr. Cooley was right; it was foul brood, but fortunately they had not infected the rest of the colonies, of which we now have 11. Mr. Smith gave us a clean bill of health, said there was not the slightest trace of foul brood, which information was thankfully received. Mr. Smith is a pleasant gentleman to meet, and is evidently "on to his job" with a big J. He submitted to being pumped gracefully, and gave us quite a batch of information on bee-lore.

In our study of bees so far we are undecided where to place them. Sometimes we think they should be classed with Mark Twain's ant in the Black Forest of Germany. Don't seem as if they knew enough to come in out of the wet. Then, again, it looks as if they were pretty level-headed. We will give you the ultimate verdict later on.

Inspector Smith informed us that he had 42 calls booked now from all over the State.

FRANK E. KELLOGG.

McHenry Co., Ill., Aug. 7.

An Interesting Experience.

In 1901, I had 10 colonies of bees in old boxes, nail-kegs, etc., and I gave a bee-man half of the bees and honey to put my half in old Langstroth hives. That season we got more honey and money for our bees than we had in 10 years before.

In 1902, we had (I say we, because I am teaching my wife and children the bee-business, as I think it better to leave them that than an insurance policy, although I have one) 7 strong and 2 weak colonies. In June I bought 25 colonies that were 25 miles from home. There was plenty of black sage there so I left them, but they have done but little good, and I could not give them the care they needed, and I am afraid they have foul brood. We have no one here who knows what foul

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STERLING, GA., June 29, 1903.

I was showing my father yesterday how my bees, which I bought from you, were out-working everything in my apiary. Send me 4 Buckeye Red Clover and 2 Muth Strain Golden Italians. I will order more after next extracting.

THOS. H. KINCADE.

Buckeye Strain Red Clover Queens. They roll in honey, while the ordinary starve. **Muth Strain Golden Italians**—NONE SUPERIOR. **Carniolans**—NONE BETTER.

Untested, 75c each; 6 for.....	\$ 4.00	Tested, \$1.50 each; 6 for.....	\$ 7.25
Select Untested, \$1.00 each; 6 for.....	5.00	Select Tested, \$2.50 each; 6 for.....	12.00

Best money can buy, \$3.50 each.

Send for Catalog of BEE-SUPPLIES; complete line at manufacturer's prices.

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One Queen.....	\$1.00	Have reduced price of Improved Queen-Rearing to 50 cents per copy. Book sent free to all who purchase three or more Queens.
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This foundation is made by a process that produces the superior of any. It is the cleanest and purest. It has the brightest color and sweetest odor. It is the most transparent, because it has the thinnest base. It is tough and clear as crystal, and gives more sheets to the pound than any other make.

Working wax into Foundation for Cash a Specialty. Beeswax always wanted at highest price.

Catalog giving FULL LINE OF SUPPLIES with prices and samples, FREE on application.

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Queens Now Ready to Supply by Return Mail

Stock which cannot be excelled. Each variety bred in separate apiaries, from selected mothers; have proven their qualities as great honey-gatherers.

Golden Italians Have no superior, and few equals. Untested, 75 cents; 6 for \$4.00.

Red Clover Queens, which left all records behind in honey-gathering. Untested, \$1.00; 6 for \$5.00.

Carniolans —They are so highly recommended, being more gentle than all others. Untested, \$1.00.

ROOT'S GOODS AT ROOT'S FACTORY PRICES.

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brood is, but from what I can read and see I am afraid it is. I am going to treat soon with formaldehyde.

I now have 45 colonies. This has been a very poor year here, and a fruit-man near my out-apiary puts out poison—he says for the yellow jackets, but of course my bees get it, too, and I don't think there is any recourse but to move the bees. And this same man, who puts out poison, had 50 colonies of bees a year ago that he had bought. To hear him talk, he was a bee-man of the "first water." He commenced to tell me what to do, and what not to do, and finally I asked him what bee-paper he took, and he said, "None." I asked him what text-book he used; he said, "None." I asked him how he could get along, and he said, "Common sense. These fellows who write books and papers don't know any more about bees than I do."

Now listen, friends, and see what his success was. In July of that year he was trying to sell his bees, because he claimed they damaged his apricots in drying, and he would not be bothered with them. Well, he sold, and I understand that a third of them had foul brood in a short time afterward.

Now, my 25 colonies are in range of a man who has 80 acres of apricots, and he says his apricots have been better since my bees have been there (4 years) than ever before. And I asked him if they injured his drying apricots, and he said, "No, they do them good by taking out the water so they will dry sooner." So that is the result of a bee-man without a book on bees or a bee-paper, and so it will ever be.

When I started in I got "ABC in Bee-Culture," Gleanings, and last, but not least the great American Bee Journal. Now I am sent for here and there to take off honey, transfer bees, and give information. They say, "Go and see Wittner, he knows more about bees than any one I know of." (They don't know how little I do know, and I don't tell them, either). But such is the reputation of a man who tries to inform himself from what it has taken others years to learn. What could I do without my bee-literature? Why, what I did before I had it—nothing in the honey-business.

So, in closing, I say hurrah and three cheers for our bee-book, G. W. York, of the American Bee Journal, Gleanings, and Root, hog or die.

Santa Cruz Co., Calif.

P. S.—And add hurrah for the Chicago Queen.

Italians and Unfinished Sections.

I have been a constant and interested reader of the American Bee Journal for about 3 years, and will say that it's worth to me has been many times its cost. I am always interested in items "From Many Fields," as I belong to the same class of little fish that swim in that shallow pool.

I keep Italian bees, both 3 and 5 bands. I bought 3 colonies of blacks to test their great value in the production of fancy comb honey. After a test of two seasons in the same yard, and giving blacks advantages in the way of special care, also full sheets of foundation in sections, I was disappointed, or rather pleased, to find that my Italians could and did beat them both in number of sections and fancy capping. I tested them with $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{2}$ and

A Rare Chance

FINE QUEENS—either Golden or Honey Queens. Balance season, Untested, 50 cents; Tested, \$1.00.

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One Untested Queen.....\$.60
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One Select Tested Queen. 1.00
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One - Comb Nucleus (no Queen)..... 1.00

These prices are for the remainder of the season.

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Ideal sections—and it was with surprise that I read the article of Mr. Hutchinson, on pages 492 and 493, which is so at variance with my experience. Formerly I was bothered with greasy capping with my Italians, but by removing all finished sections as soon as the bees had completed them, I have failed to have a single greasy section from 50 colonies.

I have tried to breed from my best cappers, but hardly think that I overrated it in that way. Try removing finished sections within 5 days and see if greasy sections don't disappear—if you fail, I'll "holler" "Locality!" and then advertise in the American Bee Journal the best strain of bees in America. Sure thing, Mr. Alley will not be in it, and Mr. Doolittle will do less. For fear I will be swamped with orders, I will say that I have no queens for sale, but might sell Yon Yonson a queen over the 'phone.

I sold the black-bee sections 6 for \$1.00, and sold the Italian Ideal sections, weighing 14 to 15 ounces, 6 for \$1.10, giving the buyer choice of 16 to 18 ounces of bee-way section, or a light-weight plain. I sold to consumers.

I have tried hybrids, but none are equal to the pure Italians in this "locality."

During the height of the honey-flow I run out of foundation, and could not get it in time, so I was in quite a disagreeable condition. Luckily, I had quite a number of sections with comb in them, left over from last season. I cut the comb out of the sections, excepting a V-shaped piece which I left as a starter in the section. I then cut the comb taken out into 3-cornered pieces, about 2 inches to an side, with a hot bread-knife, which did the work in first-class condition. I then took the sections in the flat and laid them on the table; I held the pieces of comb for just a moment over a lighted lamp, and then placed them in the center of the section, the melted wax making them adhere tightly to the sections. I could not see but what I got as good results as though I had used foundation. So you see my unfinished sections were worth 65 cents a pound. I am so well pleased that I shall try it again.

J. M. WEST.

Pike Co., Ohio, Aug. 1.

Poor Crops in Louisiana.

The honey crop in Louisiana is very poor this year, about 50 percent short, caused by the excessive rains which began in May. This, as a rule, is a great honey country, and we never have to take the bees in-doors to winter.

As I am intimate with Illinois and the other 8-months-winter States, I can proudly say Louisiana and California have them "skinned a Texas black."

S. J. WEBER.

East Baton Rouge Co., La., Aug. 4.

Wanted—A Honey-Wagon.

I need a honey-wagon badly, and I know there are many thousands like me; in fact, everybody who handles honey needs a light, cheap honey-wagon that will hold 150 pounds of comb honey. It should have springs so the comb honey could be hauled over ordinary ground without breaking. We could haul the heavy combs to the extractor, and return them; we could haul comb honey to the honey-house, and many other things about the apiary. If I had one I would use it apart of the time in selling honey.

Now, don't say, "Use a wheelbarrow." It

breaks the honey, is hard to push, and sometimes it upsets.

I have kept bees for 30 years; I have never made millions out of them, but they have more than paid their way. We have a little more than half a crop this year, and the quality is very fine.

Let us hear from others—any person who wants a honey-wagon. We can generally get anything we want, if we talk right through the American Bee Journal. Oh, may it live while man remains on the earth.

D. G. PARKER.

Brown Co., Kans., Aug. 11.

[Here is a chance for bee-supply manufacturers. Bring on your honey-wagon!—EDITOR.]

Appreciative—Drowning Queens.

On page 483, appears a description of a robber-cloth by Dr. Miller, which, I think, is a very useful article, and for which I wish to return thanks. In fact, there are very many things I have seen in the American Bee Journal for which I intended to thank the writers many times. Hardly a day passes that I do not feel thankful to some one who has contributed to my knowledge in bee-keeping, and I think it would be a good thing for all of us to indorse a good thing when we receive it, thereby encouraging a more free contribution, as well as letting the writer know that his efforts are appreciated.

Right here I wish to thank Dr. Miller especially, for his method of arranging the brood-chamber, as regards the pollen-comb described by him in his "A Year Among the Bees" (now out of print). This seemingly little advise is of no small consequence to me, nor to any one whose locality furnishes an overabundance of pollen, as it puts one in position to put his hand right on the bulk of pollen in a colony instantly.

Another seemingly small matter of no less importance, is the adjusting of the brood-nest in the spring with a division-board, *a la* Doolittle. Please accept my thanks, Mr. Doolittle. This adjusting is of great value to me in this cold climate, for with it I can fit up any size colony snugly, and not have them put brood in undesirable combs.

Another very important thing to me is to know how to use the most important hive-tool—a very strong jack-knife, *a la* Heddon. I have used many different hive-tools, such as a putty-knife, framing chisel, a screw-driver, etc., but to my notion there is nothing that can approach a "jack-knife" of the right kind for convenience and handiness. It is always ready for service, such as a chisel, screw-driver, crow-bar, queen-clipping device, drone-brood extingisher, hive-scraper, tack-hammer, etc.

In this way I could go on mentioning implements, methods, and the names of their inventors and contributors, but space does not permit, as it would fill the columns of the American Bee Journal for weeks, so I will refrain from going into detail any further, but thank each and all who have been contributors to these columns, for even the smallest mite will help to make up a complete method.

Before I close I want to haul Dr. Miller over the coals for his putting those queens into the water. (See page 483.) He says he wets them so they may introduce easier, but

QUEENS!

Golden and Leather-Colored Italian, warranted to give satisfaction—those are the kind reared by **QUIRIN-THE-QUEEN-BREEDER**. Our business was established in 1888. Our stock originated from the best and highest-priced long-tongued red clover breeders in the U. S. We rear as many, and perhaps more, queens than any other breeder in the North. Price of queens after July 1st: Large Select, 75c each; six for \$4; Tested Stock, \$1 each; six for \$5; Selected Tested, \$1.50 each; Breeders, \$3 each. Two-frame Nuclei (no queen) \$2 each. All Queens are warranted pure.

Special low price on queens in lots of 25 to 100. All queens are mailed promptly, as we keep 300 to 500 on hand ready to mail.

We guarantee safe delivery to any State, Continental Island, or European Country. Our Circular will interest you; it's free.

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(The above ad. will appear twice per month only.) 16E13t

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FENCE! STRONGEST MADE! Ball Strong, Chicken-Tight. Sold to the Farmer at Wholesale Prices. Fully Warranted. Catalog Free. COILED SPRING FENCE CO. Box 89 Winchester, Indiana, U. S. A.

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CARTONS FOR HONEY Wanted, to introduce the best, most practical, lowest-price Carton for honey, all things considered; costs nothing. We have wholesaled honey in this city for 30 years. We have seen no honey-carton equal to this. Send us five two-cent stamps, and we will send you sample, together with explanation, and some practical suggestions regarding marketing honey to best advantage; also live poultry. We originated and introduced the now popular one-pound section. Established in 1870.

H. R. WRIGHT, Wholesale Commission, PROMPTNESS A SPECIALTY. ALBANY, N. Y. 30E3t Please mention the Bee Journal.

150 Nuclei for Sale Strictly Red Clover Strain.

One 2-frame, Untested Queen.....\$2.50
One 2-frame, Tested Queen.....3.00

All in light shipping-boxes, on wired Langstroth frames.

34A1t **A. D. D. WOOD, LANSING, MICH.**



If Our Agent

don't call on you soon, send for agent's terms.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.
Please mention Bee Journal when writing.

If you want the Bee-Book

That covers the whole Apicultural Field more completely than any other published, send \$1.20 to

Prof. A. J. Cook, Claremont, Cal.,

—FOR HIS—
"Bee-Keeper's Guide."
Liberal Discounts to the Trade.

BOYS WE WANT WORKERS

Boys, Girls, old and young alike, make money working for us. We furnish capital to start you in business. Send us 10c stamps or silver for full instructions and a list of samples to work with. **DRAPER PUBLISHING CO., Chicago, Ill.**

when you read on you find he drowns them. Now, you just wait, Doctor, I am going to call the attention of Miss Wilson to you, and if you put any more queens into water to wet them, she'll tend to you, won't you, Miss Wilson? For he will say he just wets them, but afterward you see he drowns them. So don't let him put any more queens into water, for he will surely drown them. He thinks he can introduce them easier then. May be he can, but would they be worth any more than those half-dead ones we get through the mail? Well, we will wait and see what Hasty says. Most likely he is after him by this time, and the chances are he caught him.

Chippewa Co., Wis. A. C. F. BARTZ.

So. Dakota Prospects—Foul Brood.

As it has been some time since I have seen anything in the American Bee Journal in regard to the honey prospects of South Dakota, I thought I would write what they are.

Our bees wintered well, all those with plenty of stores. I winter them on the summer stands, and never lose a colony on account of the weather. If I lose any it is on account of the queens. This is the 15th year I have kept bees in this place, and I produce comb honey altogether, also allow natural swarming and

FREE as a... Premium

A Foster Stylographic PEN....

This pen consists of a **hard rubber** holder, tapering to a **round point**, and writes as smoothly as a lead-pencil. The **point and needle** of the pen are made of **platina**, alloyed with **iridium**—substances of great durability which are not affected by the action of any kind of ink.

They hold sufficient ink to write 10,000 words, and **do not leak or blot**.

As they make a line of **uniform width** at all times they are **unequaled for ruling purposes**.

Pens are furnished in neat paper boxes. Each pen is accompanied with full directions, filler and cleaner.

BEST MANIFOLDING PEN ON THE MARKET.

19,000 Postmasters use this kind of a pen. The Editor of the American Bee Journal uses the "Foster." You should have one also.

How to Get a "Foster" FREE.

Send two NEW SUBSCRIBERS to the American Bee Journal for one year, with \$2.00; or send \$1.00 for the Pen and your own subscription to the American Bee Journal for one year; or, for \$1.00 we will mail the pen alone. Address,

GEORGE W. YORK & CO.
144 & 146 Erie St., Chicago, Ill



(Exact size of the Pen.)

no clipped queens. My average yield is from 50 to 60 pounds per colony, spring count, and I never rob my bees. I have had 10 new swarms so far this spring, and they were all very large; and I wish to state that every swarm could be hived sitting in a chair, and with perfect ease. Now, don't think I am jesting, for I am in earnest, as many of my bee-friends around here can testify. I will further say that during all these years only one swarm clustered over 4 feet high.

We have between 150 and 200 colonies of bees in this vicinity, and many have foul brood. I have it on all sides of me, from within a mile to 40 rods, and have never had a cell in any of my colonies, and you may guess how thankful I am. Our bee-keepers, whose bees have it, are getting rid of it as fast as they can, and when they all get it disposed of they will not invest in it again in this vicinity.

Right here, while on this very important subject to bee-men all over the United States, I wish to answer a question asked in the Chicago convention by Mr. Craven (see page 469). Question: Does it pay to feed sugar for the manufacture of honey with a view to profit? My answer is emphatically *No*. And I say also, and wish that I could be in the convention at Los Angeles, so that all bee-men could hear me, *Never feed sugar to bees unless you want to cut off the head of the hen that lays the golden egg.*

And now I want to be put on record as saying that there would never have been such a scourge as foul brood if all bee-keepers would deal honestly with their bees. Oh, that almighty dollar! Poor bees, those abundant winter stores taken away and adulterated sugar substituted, and still a little later, on close examination, oh, horrors, foul brood!

And now, my brother bee-keepers, I have not been joking. I know what I am saying, and later you will all know that I know, so get rid of foul brood, all you who have colonies so afflicted. If you feed, use nothing but pure honey, then foul brood will be no more.

J. M. HOBBS.

Yankton Co., S. Dak., July 27.

Close Saturdays a 1 p.m.—Our customers and friends will kindly remember that beginning with July 1, for three months we will close our office and bee-supply store at 1 p.m. on Saturdays. This is our usual custom. Nearly all other firms here begin the Saturday afternoon closing with May 1st, but we keep open two months later on account of the local bee-keepers who find it more convenient to call Saturday afternoons for bee-supplies.

Tennessee Queens.



Daughters of Select Imported Italian, Select long-tongued (Moore's), and Select, Straight 5-band Queens. Bred $\frac{3}{4}$ miles apart, and mated to select drones. No bees owned within $\frac{1}{4}$ miles; none impure within 3, and but few within 5 miles. No disease. 30 years' experience. **WARRANTED QUEENS**, 60 cents each; **TESTED**, \$1.25 each. Discount on large orders. Contracts with dealers a specialty. Discount after July 1st

Send for circular.

JOHN M. DAVIS,

SPRING HILL, TENN.

9A26t

Please mention Bee Journal when writing

Long Tongues Valuable

South as well as North.

How Moore's strain of Italians roll in the honey down in Texas.

HUTTO, TEX., Nov. 19, 1902.
J. P. MOORE.—Dear Sir:—I wish to write you in regard to queens purchased of you. I could have written sooner, but I wanted to test them thoroughly and see if they had those remarkable qualities of a three-banded Italian bee. I must confess to you I am more surprised every day as I watch them. They simply "roll the honey in." It seems that they get honey where others are idle or trying to rob; and for gentleness of handling, I have never seen the like. Friend E. R. Root was right when he said your bees have the longest tongues; for they get honey where others fail. I will express my thanks for such queens. I am more than pleased. I will stock my out-apiaries next spring with your queens.

Yours truly, HENRY SCHMIDT.

The above is pretty strong evidence that red clover is not the only plant which requires long-tongued bees to secure the greatest quantity of nectar.

Daughters of my 23-100 breeder, the prize-winner, and other choice breeders: Untested, 75 cents each; six, \$4.00; dozen, \$7.50. Select untested, \$1.00 each; six, \$5.00; dozen, \$9.00. Safe arrival and satisfaction guaranteed. Circular free. I am filling all orders by return mail, and shall probably be able to do so till the close of the season.

J. P. Moore, L. Box 1, Morgan, Ky.
31A4t Pendleton Co.

Please mention Bee Journal when writing

\$5 TO START YOU IN BUSINESS
We will present you with the first \$5 you take in to start you in a good paying business. Send 10 cents for full line of samples and directions how to begin.
DRAPER PUBLISHING CO., Chicago, Ills.

Ready to fill orders for **ITALIAN QUEENS** from stock that for hardiness and good working-qualities is second to none. M.O. Office, Cleveland, Tenn.
CHESLEY PRESSWOOD,
31A4t McDONALD, Bradley Co., TENN.
Please mention Bee Journal when writing

BINGHAM'S PATENT
25 years the best.
Send for Circular. **Smokers**
25A4t T. F. BINGHAM, Farwell, Mich.

Business Queens.

Bred from best Italian honey-gathering stock, and reared in **FULL COLONIES** by best known methods. Guaranteed to be good Queens and free from disease. Untested, 75c each; 6, \$4.00. Tested, \$1.25 each. **CHAS. B. ALLEN**,
Central Square, Oswego Co., N. Y.

This ad will not appear again this season.
18A4t Please mention the Bee Journal.

Wanted to Sell 10 COLONIES OF BEES in dovetailed eight frame hives. Good condition. Address at once, L. E. COX,
33A2t R. F. D. 27, Hortonville, Ind.
Please mention Bee Journal when writing

DAIRYMEN ARE DELIGHTED
to meet those who work for us. Cow keepers always have money. We start you in business. You make large profits. Easy work. We furnish capital. Send 10 cents for full line of samples and particulars.
DRAPER PUBLISHING CO., Chicago, Ills.
Please mention Bee Journal when writing

BEE-SUPPLIES!
ROOT'S GOODS AT ROOT'S PRICES.
Everything used by bee-keepers.
POUDER'S HONEY-JARS. Prompt service. Low Freight Rates.
NEW CATALOG FREE.
WALTER S. POUDER.
512 MASS. AVE. INDIANAPOLIS, IND.

HONEY AND BEESWAX

MARKET QUOTATIONS

CHICAGO, Aug. 7.—Consignments of the new crop are coming to commission houses that have not had honey for years past, and as there is not any consumptive demand they are finding difficulty in disposing of it. Under such conditions it is hardly possible to give accurate prices, as some merchants ask 10 cents for honey that others hold at 15 cents. The prices given in our last quotations are asked, but feeling is unsettled. Beeswax steady at 30c.

KANSAS CITY, July 28.—Some new comb honey in market, but on account of hot weather the demand is not heavy, but will be getting better every day. Fancy white comb, 24 sections, per case, \$3.50; No. 1, white and amber, 24 sections, per case, \$3.25; No. 2, white and amber, 24 sections, per case, \$3.00. Extracted, white, per pound, 6@6½c; amber, 5½c. Beeswax, good demand, 25@30c.
C. C. CLEMONS & Co.

ALBANY, N. Y., July 18.—We are receiving some shipments of new comb honey, mostly from the South; the demand light as yet; we are holding at 15@16c. Extracted slow at 6@7c. The crop of honey in this vicinity is very light, and we shall have to depend upon other sections more than ever for our supply of honey. Beeswax, 30@32c. H. R. WRIGHT.

CINCINNATI, Aug. 6.—The supply about equals the demand for extracted honey. We are selling amber extracted in barrels from 5½@6½c, according to quality. White clover, barrels and cans, 7@8½c, respectively. Comb honey, fancy, in no drip shipping cases, 16@16½c. Beeswax, 30c. THE FRED W. MUTH CO.

NEW YORK, July 8.—Some new crop comb honey now arriving from Florida and the South, and fancy stock is in fair demand at 14c per pound, and 12@13c for No. 1, with no demand whatever for dark grades.

The market on extracted honey is in a very unsettled condition, with prices ranging from 5@5½c for light amber, 5½@6½c for white, and the common Southern at from 50@55c per gallon. Beeswax steady at from 30@31c.

HILDRETH & SEGELKEN.

CINCINNATI, Aug. 8.—New honey is now offered very freely, particularly extracted. The demand for honey is about as usual at this time of the season. I made sales at the following figures: Amber, 5@5½c; water-white alfalfa, 6½c; fancy white clover honey, 7@7½c. Comb honey, fancy water-white, brings from 14@15c. Beeswax, 27@30c. C. H. W. WEBER.

SAN FRANCISCO, July 22.—White comb honey, 11½@13½c; amber, 8@10c. Extracted, white, 5½@5c; light amber, 4½@5c; amber, 4½@4¾c; dark, 3½@4¼c. Beeswax, good to choice, light, 27½@29c; dark, 25@26c.

This season's crop is not only unusually late, but is proving much lighter than was generally expected. While the market is unfavorable to buyers, the demand at extreme current rates is not brisk and is mainly on local account.

WANTED! Extracted Honey.

Send sample and best price delivered here; also Fancy Comb wanted in no-drip cases.

THE FRED W. MUTH CO.

32A4t Front and Walnut, CINCINNATI, OHIO.

WANTED—Comb Honey in quantity lots. We are perhaps the only dealers in this article owning as much as 150,000 pounds at one time. Please state quantity, quality and price asked for your offerings, **Thos. C. Stanley & Son**,
24A4t MANZANOLA, COLO., or FAIRFIELD, ILL.
Please mention Bee Journal when writing

WANTED—Extracted Honey.

Mail sample and state lowest price delivered Cincinnati. Will buy **FANCY WHITE COMB HONEY**, any quantity, but must be put up in no-drip shipping-cases.

O. H. W. WEBER,

2146-48 Central Ave., CINCINNATI, OHIO.

34A4t Please mention the Bee Journal.

WANTED!

TO BUY—White Clover Comb and Extracted HONEY—also Beeswax. Spot cash. Address at once, **C. M. SCOTT & CO.**
33A4t 1004 E. WASH. ST., INDIANAPOLIS, IND.

Please mention Bee Journal when writing

The Best Bee-Goods in the World....

are no better than those we make, and the chances are that they are not so good. If you buy of us **you will not be disappointed.** We are undersold by no one. Send for new catalog and price-list and free copy of THE AMERICAN BEE-KEEPER; in its thirteenth year; 50 cents a year; especially for beginners.

—THE—
W. T. Falconer Mfg. Co.,
JAMESTOWN, N. Y.

W. M. GERRISH, Epping, N.H., carries a full line of our goods at catalog prices. Order of him and save the freight.

Please mention Bee Journal when writing.

Queen-Clipping Device Free!



The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens' wings. It is used by many bee-keepers. Full printed directions sent with each one. We mail it for 25 cents; or will send it **FREE** as a premium for sending us One New subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year and the Clipping Device. Address,

GEORGE W. YORK & CO.,
144 & 146 E. Erie St., - CHICAGO, ILL.

INVESTMENTS —IN— SOUTHERN LANDS.

Such investments are not speculative. The South is not a new country. Market and shipping facilities are adequate and first-class. The climate is mild and favorable. Notwithstanding these and other advantages, Southern lands are selling for prices far below their real value, and at present prices net large returns on the investment. For a free set of circulars, Nos. 1 to 10, inclusive, concerning the possibilities of lands in Kentucky, West Tennessee, Mississippi and Louisiana, on and near the Illinois Central Railroad, for homeseekers and investors, address the undersigned,

A. H. HANSON, G. P. A., Chicago.
26A12t Please mention the Bee Journal.

Italian Queens, by Mail. Golden and Honey Queens.

July and August.		1	6	12
Honey Queens (Untested)...	\$.75	\$4.00	\$7.00	
" (Tested)....	1.25	7.00	13.00	
Golden " (Untested)...	.75	4.00	7.00	
" (Tested)....	1.25	7.00	13.00	
2-frame Nucleus (no queen) 2.00		11.00	21.00	
Breeders, \$3.00 each, after June 1.				

Add price of any Queen wanted with Nucleus. Our bees are shipped in light shipping-cases. Purchaser pays express on Nuclei. Safe arrival guaranteed of all stock sent out.

OCONOMOWOC, WIS., Aug. 1, 1903.
I like your queens. The best of any that I ever had. Respectfully yours,
FRANK D. GUNDERSON.

LITCHFIELD, ILL., Aug. 3, 1903.
DEAR SIR:—Enclosed please find money order for \$1.50 for which send me two untested honey-queens. The one I bought of you two years ago is all right. There are no better. Respectfully yours,
GUS PICAMAN.

Notice. — No tested stock sent out before May 15. Send money by P. O. Money Order or Express Order. **D. J. BLOCHER,**
PEARL CITY, ILL.

26th
Year

Dadant's Foundation

26th
Year

We guarantee Satisfaction. What more can anybody do? BEAUTY, No LOSS. PATENT WEED-PROCESS SHEETING.

Why does it sell so well? Because it has always given better satisfaction than any other. Because in 25 years there have not been any complaints, but thousands of compliments.

Send name for our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

Bee-Keepers' Supplies

OF ALL
KINDS *****

xx

Very fine pure-bred BARRED PLYMOUTH ROCK Chickens and Eggs for sale at very low prices.

Langstroth on the Honey-Bee—Revised,

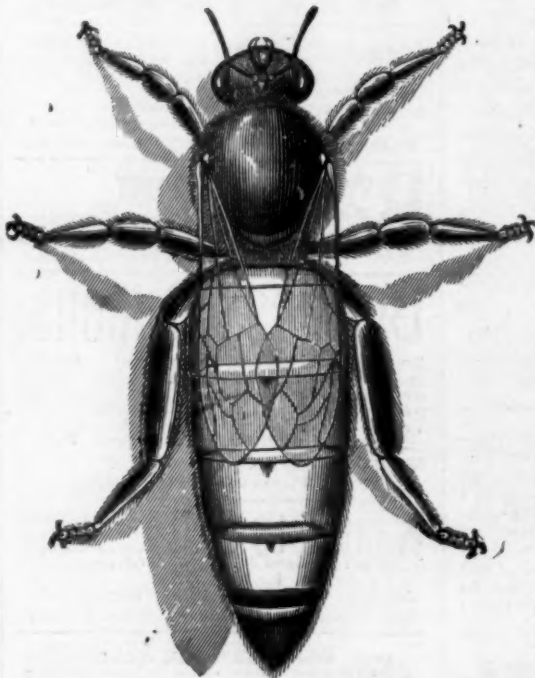
The classic in Bee-Culture—Price, \$1.20, by mail.

BEESWAX WANTED
at all times.

DADANT & SON,
Hamilton, Hancock Co., Ill

Please mention Bee Journal when writing

RED CLOVER HONEY-QUEENS.



SPRING BLUFF, WIS., July 18, 1903.

THE A. I. ROOT CO., Medina, Ohio.
Dear Sirs:—I thought I would write you a few lines in regard to the Red Clover Queen I got from you. They haven't swarmed yet this summer, but I have taken 48 sections from them and there is 24 more all ready to come off.

Just think, 72 nice sections of as nice honey as ever was made, and only July 18th. It seems as though they will surely fill 48 more.

I don't know whether their tongues are any longer than any of the others, or whether they gathered it from Red Clover, but surely such bees are worth money.

I use the 8-frame Jumbo frame.

C. E. KELLOGG.

C. E. KELLOGG, Spring Bluff, Wis.
Dear Sir—We have yours of July 18th and would be glad to have you advise us by return mail with reference to the capping of the honey. Some parties say the capping from these bees is not white, and we would be glad to have you advise us how your honey is in this respect, and oblige,
Yours truly,
THE A. I. ROOT CO.

SPRING BLUFF, WIS., July 31, 1903.

THE A. I. ROOT CO., Medina, Ohio.
Dear Sirs:—Yours of July 24th at hand to-day. In regard to your question in reference to the cappings of the honey from these bees I will say that it is simply perfect, beautiful snow-white and every box perfect. 96 one-pound sections now. I am quite sure they will fill two more supers, which will bring the number up to 144. I would like very much to have you see a few of those sections, and I will be glad to send you a few.

Now, I haven't told you ALL their good qualities yet. I am sure they are by far the most gentle bees to handle I have. I could take off the sections without smoke or veil without getting stung.

There are a few traits about them that seem to me are quite remarkable aside from their honey-gathering; they don't seem to want to swarm. I will write you again in a few weeks and let you know if they fill the 144 sections, which I am sure they will. Respectfully,
C. E. KELLOGG.

AGAIN READY FOR PROMPT DELIVERY.

We were snowed under with orders for a few weeks, but here we are again with good Queens and prompt service.

Red Clover and Honey Queens.

	Each.	Six.	Each.
Untested	\$1.00	\$5.70	\$3.00
Tested	2.00	11.40	7.50
Select Tested	5.00	17.10	10.00

With any of the last three we include one frame of bees and brood to insure safe arrival, for which we make no charge. These must be sent by express. Queen circular free.

THE A. I. ROOT CO., Medina, Ohio.